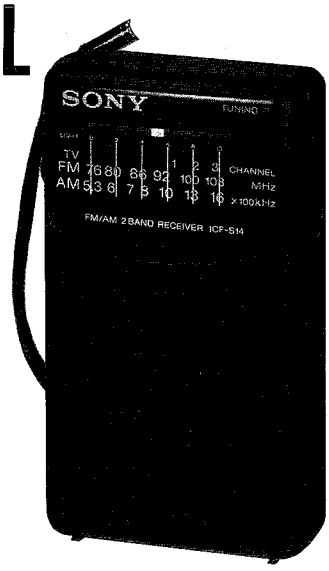
ICF-S14

SERVICE MANUAL



AEP Model
E Model

SPECIFICATIONS

Frequency range	FM: 87.6 - 108 MHz AM: 530 - 1,605 kHz
Antennas	FM: Telescopic antenna AM: Built-in ferrite bar antenna
Speaker	Approx. 5.7cm(2 1/4 inches) dia.
Power output	100 mW (at 10% harmonic distortion)
Power requirements	3V DC, two R6(size AA) batteries
Battery life	Approx. 30 hours of listening (for four hours a day at a normal volume), using Sony SUM-3(NS) batteries
Dimensions	Approx. 69 x 120 x 335 mm (w/h/d) (2 3/4 x 4 3/4 x 1 3/8 inches)
Weight	Approx. 210 g (7.4 oz.) incl. batteries

Design and specifications subject to change without notice.

MICROFILM

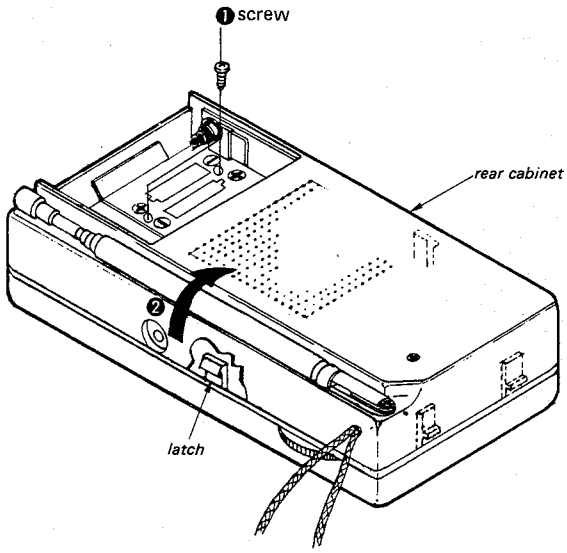
FM/AM 2BAND RECEIVER

SONY®

SECTION 1
DISASSEMBLY

1-1. REAR CABINET REMOVAL

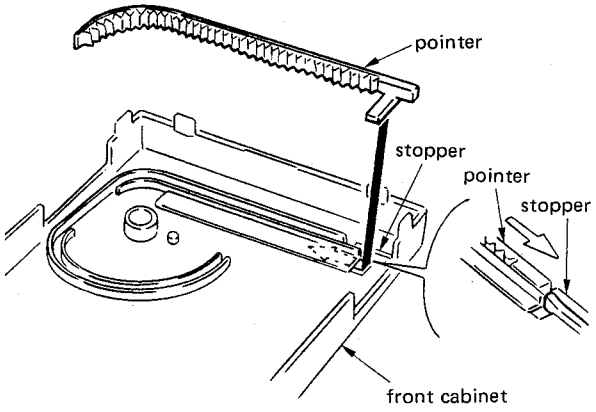
Note: Follow the disassembly procedure in the numerical order given.



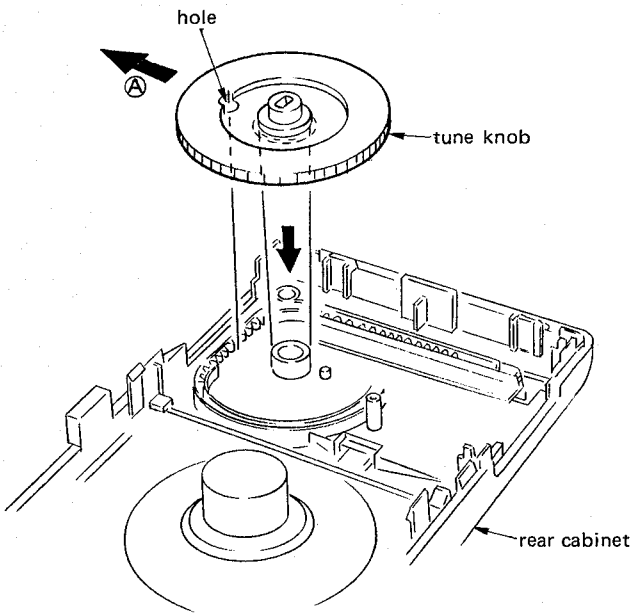
Release the latch by opening the rear cabinet in the direction of arrow❷.

1-2. POINTER SETTING

Slide the pointer to reach the stopper.



1-3. TUNE KNOB INSTALLATION

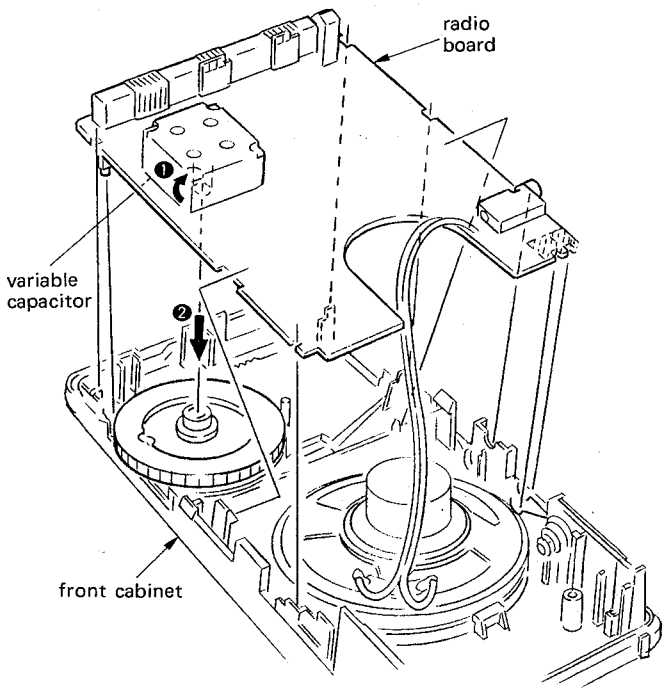


Set the hole of tune knob in the direction of arrow Ⓐ and install it to rear cabinet.

1-4. RADIO BOARD INSTALLATION

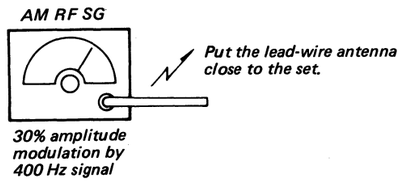
❶ Turn the variable capacitor fully in the direction of arrow.

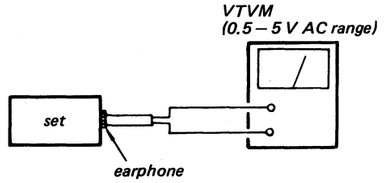
❷ Install radio board to the front cabinet.



SECTION 2
ADJUSTMENTS

2-1. AM SECTION

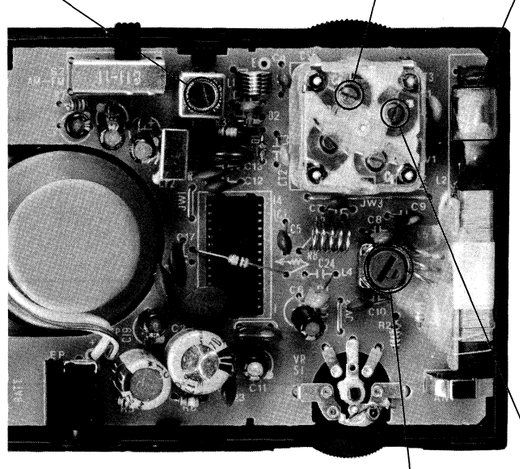




- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

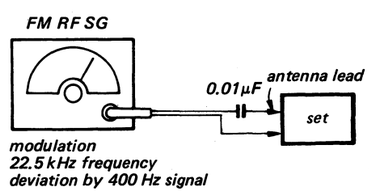
AM IF ALIGNMENT
Adjust for a maximum reading on VTVM.
455 kHz
T1

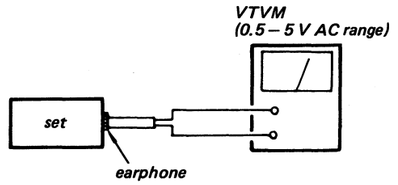
AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
1,400 kHz	620 kHz
CT1	L2



L4	CT3
520 kHz	1,650kHz
Adjust for a maximum reading on VTVM.	
AM FREQUENCY COVERAGE ADJUSTMENT	

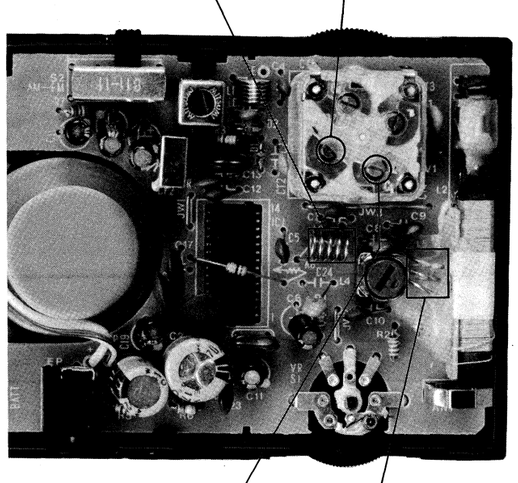
2-2. FM SECTION





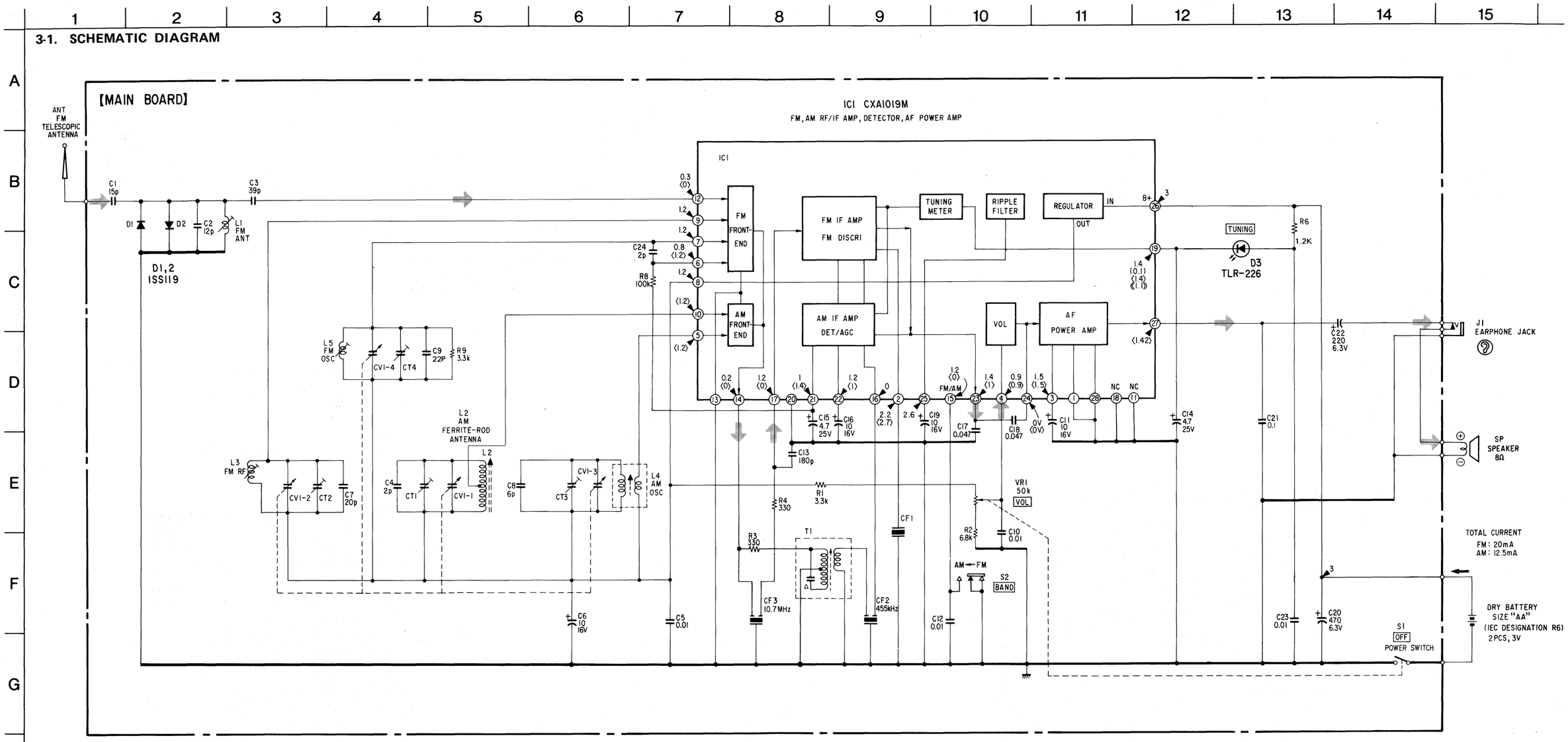
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
86.5MHz	109.5MHz
L3	CT2



CT4	L5
109.5MHz	86.5MHz
Adjust for a maximum reading on VTVM.	
FM FREQUENCY COVERAGE ADJUSTMENT	

3-1. SCHEMATIC DIAGRAM

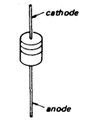
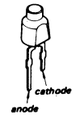
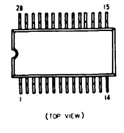


Note:

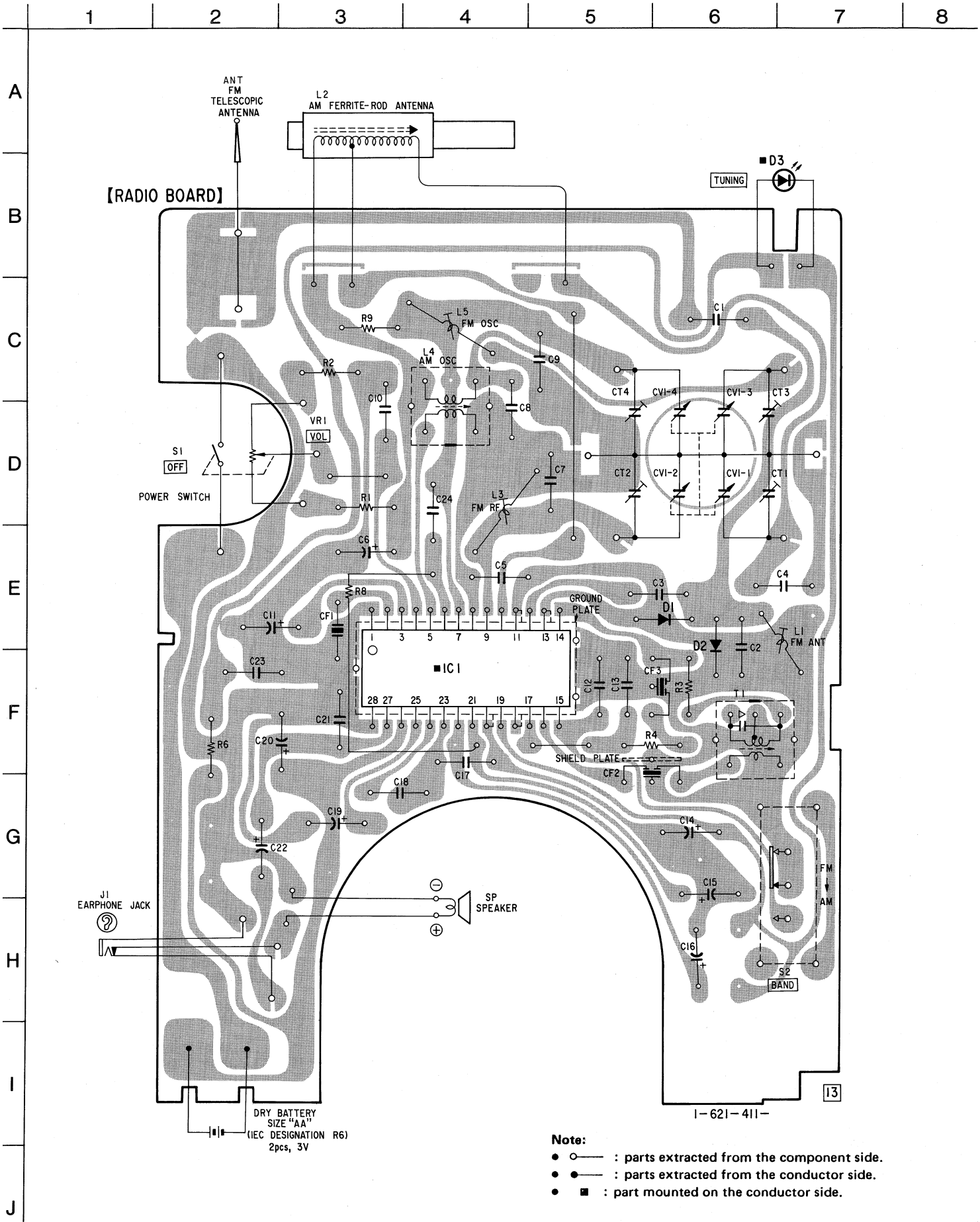
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ➡ : Signal paths.
- △ : internal component.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under detuned conditions with a VOM (50 kΩ/V).
  No mark: FM detuned
  ( ) : FM tuned
  ≪ ≫ : AM tuned
  < > : AM detuned
- Voltage variations may be noted due to normal production tolerances.
- Switches:

Ref. No.	Switch	Position
S1	POWER	OFF
S2	BAND	FM

- **Semiconductor Lead Layouts**

1SS119	TLR226	CXA1019M
		

3-2. MOUNTING DIAGRAM



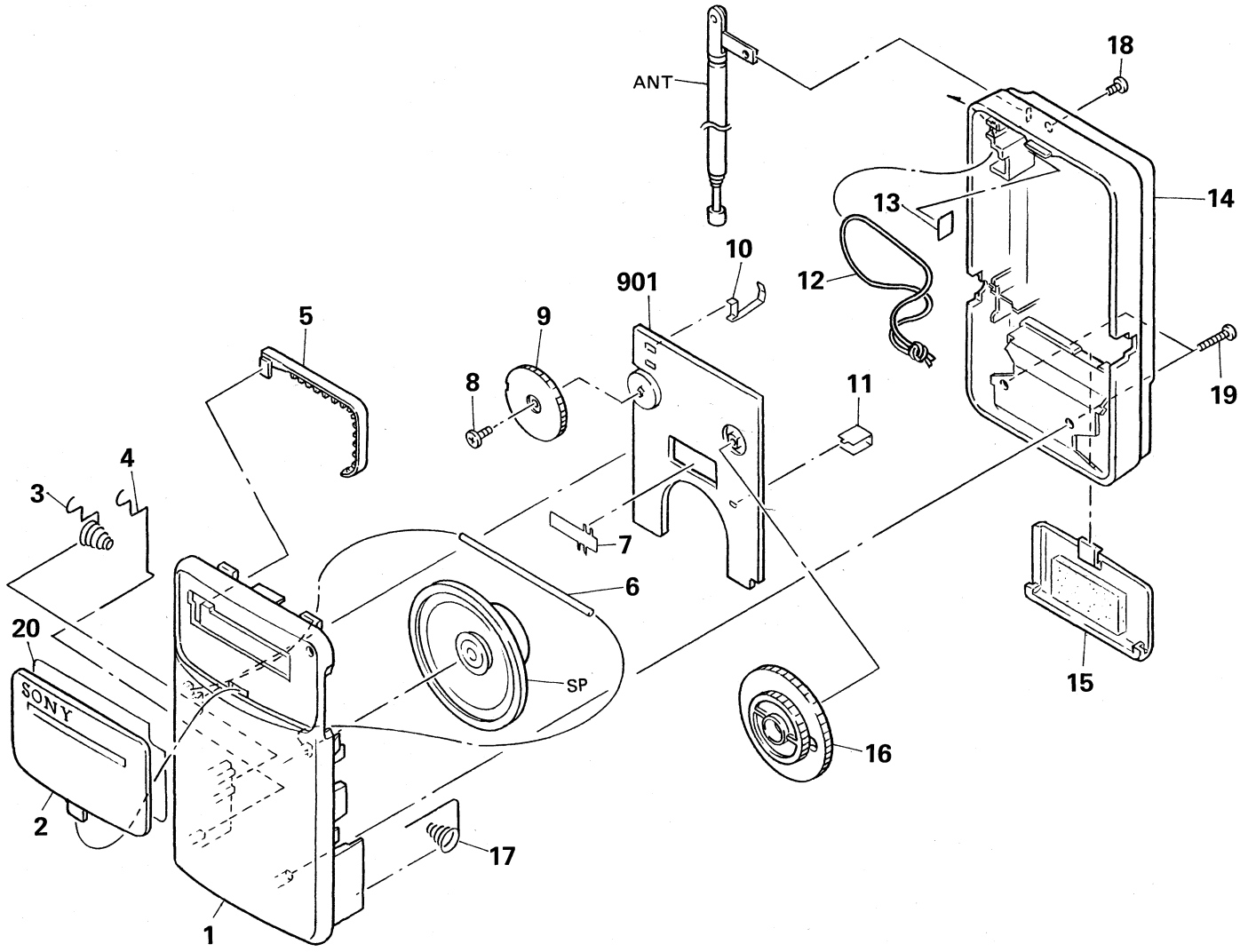
Note:

- ● ○—— : parts extracted from the component side.
- ● ●—— : parts extracted from the conductor side.
- ● ■ : part mounted on the conductor side.

SECTION 4
EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ Cabinet's Color ↑ Parts Color



No.	Part No.	Description	Remarks
1	3-903-419-01	(BLK).....CABINET (FRONT)(BLK)	
	3-903-419-11	(E:RED)...CABINET (FRONT)(RED)	
2	3-903-413-21	(E:BLK)...SCALE, DIAL (BLK)	
	3-903-413-31	(E:RED)...SCALE, DIAL (GRY)	
	3-903-413-41	(AEP:BLK)...SCALE, DIAL (RED)	
3	3-903-415-01	TERMINAL, PLUS	
4	3-903-421-01	SPRING, MINUS	
5	3-903-412-01	POINTER	
6	*3-903-416-01	SPRING, SPEAKER RETAINER	
7	3-892-935-11	PLATE, GROUND	
8	3-714-118-01	SCREW (1.7X4)	
9	3-893-375-01	(BLK).....KNOB, VOL (BLK)	
	3-893-375-31	(E:RED)...KNOB, VOL (RED)	
10	*3-893-369-01	TERMINAL, ANT	
11	*3-893-382-01	PLATE (SFU), SHIELD	

No.	Part No.	Description	Remarks
12	3-893-381-01	STRAP, HAND	
13	3-831-441-XX	SHEET (1)	
14	3-903-420-01	(BLK).....CABINET (REAR)(BLK)	
	3-903-420-11	(E:RED)...CABINET (REAR)(RED)	
15	X-3893-321-1	(BLK).....LID ASSY, BATTERY CASE (BLK)	
	X-3893-322-1	(E:RED)...LID ASSY, BATTERY CASE (RED)	
16	3-903-411-01	(BLK).....KNOB (TUNING) (BLK)	
	3-903-411-11	(E:RED)...KNOB (TUNING) (RED)	
17	3-903-414-01	TERMINAL, MIDWAY	
18	7-621-772-08	SCREW +B 2X3	
19	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
20	3-903-417-01	SHEET, ADHESIVE	
901	*A-3660-885-A	MOUNTED PCB, RADIO	
ANT	1-501-247-21	ANTENNA, TELESCOPIC	
SP	1-503-616-11	SPEAKER	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

Ref.No.	Part No.	Description			
901	*A-3660-885-A	MOUNTED PCB, RADIO			
ANT	1-501-247-21	ANTENNA, TELESCOPIC			
C1	1-102-951-00	CERAMIC	15PF	5%	50V
C2	1-102-949-00	CERAMIC	12PF	5%	50V
C3	1-102-965-00	CERAMIC	39PF	5%	50V
C4	1-102-935-00	CERAMIC	2PF	0.25PF	50V
C5	1-161-051-00	CERAMIC	0.01MF	10%	25V
C6	1-126-157-11	ELECT	10MF	20%	16V
C7	1-102-958-00	CERAMIC	20PF	5%	50V
C8	1-101-998-91	CERAMIC	6PF	0.5PF	50V
C9	1-102-959-00	CERAMIC	22PF	5%	50V
C10	1-161-051-00	CERAMIC	0.01MF	10%	25V
C11	1-126-157-11	ELECT	10MF	20%	16V
C12	1-161-051-00	CERAMIC	0.01MF	10%	25V
C13	1-102-976-00	CERAMIC	180PF	5%	50V
C14	1-126-094-11	ELECT	4.7MF	20%	25V
C15	1-126-094-11	ELECT	4.7MF	20%	25V
C16	1-126-157-11	ELECT	10MF	20%	16V
C17	1-101-006-00	CERAMIC	0.047MF		50V
C18	1-161-021-11	CERAMIC	0.047MF	10%	25V
C19	1-126-157-11	ELECT	10MF	20%	16V
C20	1-124-472-11	ELECT	470MF	20%	6.3V
C21	1-162-851-11	CERAMIC	0.1MF	20%	16V
C22	1-126-335-11	ELECT	220MF	20%	6.3V
C23	1-161-051-00	CERAMIC	0.01MF	10%	25V
C24	1-102-935-00	CERAMIC	2PF	0.25PF	50V
CF1	1-567-389-11	FILTER, CERAMIC			
CF2	1-527-870-00	FILTER			
CF3	1-567-389-11	FILTER, CERAMIC			
CT1-4, CV1	1-151-565-11	CAP, VARIABLE (FM/AM)			
D1	8-719-911-19	DIODE 1SS119			
D2	8-719-911-19	DIODE 1SS119			
D3	8-719-812-26	DIODE TLR226			
IC1	8-752-030-15	IC CXA1019M			
J1	1-507-952-11	JACK			

Ref.No.	Part No.	Description			
L1	*1-422-326-11	COIL, AIR-CORE (FM ANT)			
L2	1-402-257-11	ANTENNA, FERRITE-ROD (MW)			
L3	*1-422-320-11	COIL, AIR-CORE			
L4	1-406-028-00	COIL, OSC (MW)			
L5	*1-422-341-11	COIL, AIR-CORE			
R1	1-249-423-11	CARBON	3.3K	5%	1/4W
R2	1-249-427-11	CARBON	6.8K	5%	1/4W
R3	1-249-411-11	CARBON	330	5%	1/4W
R4	1-249-411-11	CARBON	330	5%	1/4W
R6	1-249-418-11	CARBON	1.2K	5%	1/4W
R8	1-249-441-11	CARBON	100K	5%	1/4W
R9	1-249-423-11	CARBON	3.3K	5%	1/4W
S2	1-552-370-00	SWITCH, SLIDE			
SP1	1-503-616-11	SPEAKER			
S1, VR1	1-237-594-11	RES, VAR, CARBON (WITH S) 50K			
T1	1-404-919-11	TRANSFORMER, IF			

ACCESSORY & PACKING MATERIAL

3-751-626-11	MANUAL, INSTRUCTION
3-898-651-01	SPACER
3-903-406-01	INDIVIDUAL CARTON